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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/816,192

04/02/2004

Gi-joong Jeong

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05/31/2006

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WASHINGTON, DC 20037

EXAMINER

ING, MATTHEW W

ART UNIT

PAPER NUMBER

3637

DATE MAILED: 05/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/816,192	<b>Applicant(s)</b> JEONG ET AL.	
	<b>Examiner</b> Matthew W. Ing	<b>Art Unit</b> 3637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on 3 March 2005 was filed after the mailing date of the application on 2 April 2004. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Drawings***

2. The drawings are objected to because the cross-sectional view shown in Figure 5 does not match the view suggested by the placement of the section lines in Figure 4. Whereas said section lines extend through both sets of bracket supporters, supporting brackets, coupling bosses, and couplers on both sides of the claimed invention, Figure 5 only shows a view corresponding to the structure on one side of the invention. The examiner suggests relocating one end of the section line in Figure 4 so that it encompasses the bracket supporters, supporting brackets, coupling bosses, and couplers on only one side of the invention.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the

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renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "Refrigerator Shelf".

### ***Claim Objections***

4. Claim 7 is objected to because of the following informalities: the word "bracket" in the phrase "the refrigerator further comprising a hook portion provided in at least one of the supporting bracket and the glass supporter..." is used in a grammatically-incorrect manner. The examiner suggests adding an "s" at the end of the word "bracket". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claim 7 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that

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the inventor(s), at the time the application was filed, had possession of the claimed invention. In particular, Claim 7 recites the limitation “the refrigerator further comprising a hook portion provided in at least one of the supporting bracket and the glass supporter...”. The wording of this claim implies that the claimed invention may include a hook portion provided in the glass supporter. However, the original disclosure fails to specify the inclusion of a hook in the glass supporter. The hook portion provided in the glass supporter is considered to be new matter. For the purposes of examination, the examiner is not giving any patentable weight to the phrase “...and the glass supporter” found in the aforementioned limitation.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Regarding Claim 1, this claim recites the limitation “...a glass on which foodstuffs are laid”. The positive language of this limitation renders the claim indefinite, since it is unclear whether the term “foodstuffs” actually denotes a component of the claimed invention, or is merely included for illustrative purposes. For the purposes of examination, the examiner is presuming that the term “foodstuffs” is not part of the claimed invention; but rather that it implies that foodstuffs can be laid upon the glass of the shelf.

1. Claims 2-7 are considered indefinite since they depend from an indefinite base claim.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

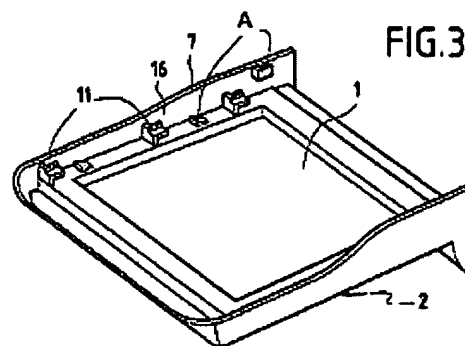
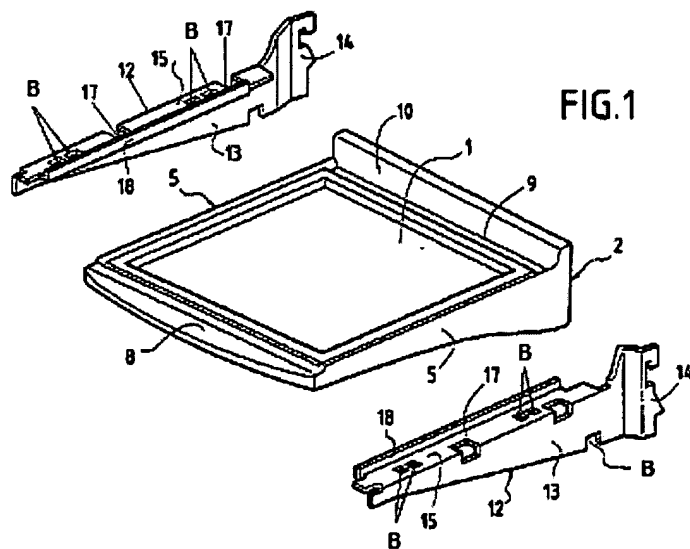
11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. Claims 1-3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lye (6,227,636) in view of Vardon (2002/0190620). Lye teaches the structure substantially as claimed, including a main body (2) formed with a storage compartment (6), wherein said storage compartment has a plurality of interval adjusting holes (45) disposed at a side of an inner wall; a door (7) hingedly connected to the main body; at least one shelf (25) provided inside said storage compartment (see Figure 1), said shelf having a hook portion (38) selectively coupled to one of the plurality of the interval adjusting holes; the only difference being, Lye fails to teach a shelf comprising a glass on which foodstuffs are laid; a glass supporter coupled to edges of the glass, said glass supporter comprising a main portion coupled to the edges of the glass, and a bracket supporter extended downward at opposite sides of the main portion and supported with the supporting bracket; a pair of supporting brackets provided in opposite sides of the glass supporter

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and supported onto a wall of the storage compartment; and a coupler coupling a lower part of the glass supporter with the supporting bracket. Vardon, however, teaches a refrigerator shelf comprising a glass (1) on which foodstuffs obviously can be laid; a glass supporter (2) coupled to edges of the glass, said glass supporter comprising a main portion (6) coupled to (3) the edges of the glass, and a bracket supporter (7) extended downward at opposite sides of the main portion (see Figure 3) and supported with the supporting bracket (see paragraph 43); a pair of supporting brackets (12) provided in opposite sides of the glass supporter and supported onto a wall of the storage compartment (see paragraph 43); and a coupler (Item A - see Figure 3, Annotated) coupling a lower part (7) of the glass supporter with the supporting bracket. It would have been obvious to one of ordinary skill in the art to include the shelf, glass, glass supporter, bracket supporter, supporting brackets, and coupler of Vardon in the refrigerator of Lye in order to provide the user with shelves that are hygienic, lightweight, and easily cleanable, thereby providing the structure substantially as claimed.



From Vardon (2002/0190620)

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13. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lye (6,227,636) in view of Vardon (2002/0190620) and Maruta (2001/0030491). Lye and Vardon teach the structure substantially as claimed above, including a plurality of couplers (Item A – see Figure 3, Annotated) formed at the bracket supporter (7) and holes (Item B – see Figure 1, Annotated) corresponding to each coupler, said couplers and holes comprising “coupling units”; a plurality of supporting ribs (11) formed between the couplers; and a supporting bracket (12) provided with a bending portion (15) fitted to the supporting ribs via notches (17), and supporting the main portion (see Figure 1); the only difference being, Lye and Vardon fail to teach the use of coupling units comprised of coupling bosses formed at the bracket supporter, with holes in the supporting bracket corresponding to each boss, and screws penetrating said holes and accommodated in said bosses. Maruta, however, teaches the use of coupling units comprising a plurality of coupling bosses (11b) formed at depending portions (12, 13) of a structure (10); penetrating holes (22a), in positions corresponding to each boss (see Figures 2-3), formed in an object (21) to be attached to said structure (10); and couplers comprising a plurality of screws (30) penetrating said penetrating holes and accommodated in said coupling bosses (see Figure 4). Since the coupling units of Lye as modified by Vardon, and the coupling units taught by Maruta, are both equivalent alternative structures used to accomplish the same purpose, it would have been obvious to one of ordinary skill in the art to replace the coupling units of Lye as modified by Vardon with the coupling bosses, penetrating holes, and couplers taught by Maruta in order to increase the structural rigidity of the connections between the supporting brackets and the glass supporter, thereby providing the structure substantially as claimed.



*Conclusion*

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ames (2003/0132691 and 6,729,704), Calvert (5,516,204), Kolbe (5,340,209), and Kane (5,403,084) teach refrigerator shelves comprising a glass on which foodstuffs are laid; a glass supporter coupled to edges of the glass, said glass supporter comprising a main portion coupled to the edges of the glass, and a bracket supporter extended downward at opposite sides of the main portion and supported with the supporting bracket; a pair of supporting brackets provided in opposite sides of the glass supporter and supported onto a wall of the storage compartment, each of said supporting brackets including a hook portion, selectively coupled to one of the plurality of interval adjusting holes disposed at an inner side of the refrigerator compartment wall; and a coupler coupling a lower part of the glass supporter with the supporting bracket. Bienick (6,488,347) and Avendano (5,947,574) teach the inclusion of ribs in structures depending from the main portion of a glass supporter. Johnson (2003/0042374) teaches the use of bosses for coupling. Brightman (5,462,350) teaches the inclusion of ribs in a structure in order to provide reinforcement. Diamond (2003/0044323) teaches the use of ribs that interface with notches on a planar structure. Swain (2002/0113189), Ramesh (2003/0034716), Schiedegger (2002/0043190), and Bohannon (4,407,476) teach the use of coupling units comprised of bosses with ribs between them, penetrating holes in the member to be connected, and screws penetrating said holes and accommodated in said bosses. Chambers (EP 0,430,660) and Fowkes (343,633) teach shelving units wherein the shelf is attached to supporting brackets via screws that penetrate both the brackets and structures depending from the horizontal surface of said shelf. Herrmann (5,297,486) and Siegal (3,834,659) teach the inclusion of a bending

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portion on supporting brackets for shelves. Patterson (3,151,576) teaches a shelf with depending members coupled to supporting brackets via screws and penetrating holes. Held (3,655,159) and Anderson (4,184,660) teach brackets with ribs with coupling bosses in between said ribs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew W. Ing whose telephone number is (571) 272-6536.

The examiner can normally be reached on Monday through Friday, 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lanna Mai can be reached on (571) 272-6867. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MWI *mm*  
5/19/06

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